FICHE NUMBER

160275

NOT AVAILABLE FROM EDRS

DOCUMENT RESUME

ED 160 274 RC 010 750

AUTHOR Rodefeld, Richard D.; Lancelle, Mark
TITLE Resident Owners, Hired Managers and Hired, Full-Time Workers of Large Wisconsin Farms: Background-SES, Family Structure and Behavioral Integration Characteristics.
PUB DATE Aug 78
NOTE 54p.; Paper presented at the Annual Meetings of the Rural Sociological Society (San Francisco, California, August 1978)

EDRS PRICE MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS Academic Achievement; Agricultural Laborers; *Behavior Patterns; Children; Community Organizations; *Family Structure; Farmers; Farm Management; *Farm Occupations; Interviews; *Organizational Change; Rural Farm Residents; *Socioeconomic Status; *Trend Analysis
IDENTIFIERS *Wisconsin; Wives

ABSTRACT

The organizational structure of farms is changing. Farm numbers have declined, sizes have increased, and changes have evolved in levels and types of structural differentiation. Corresponding changes have occurred in the farm work force, its socioeconomic status, family structure, and behavioral characteristics. The impact may be considerable. A cross-sectional survey of 266 Wisconsin farms was conducted in 1960 and 1970. On 110 of these farms, interviews yielded detailed information on farm labor force socioeconomic status, family structure and behavioral integration characteristics of the respondents, their wives, and children. Three comparison groups were formed: land-owning managers, nonlandowning hired managers, and hired workers. Special characteristics of each group indicated the changes to be anticipated as family farms are replaced by larger operations and the proportions of the work force changes accordingly. A decline can be expected in average years of formal and agricultural education along with decreased job stability and average income. Declines will occur in average age, percent married, and family size. Reductions will occur in voluntary organization membership, church contributions, political activity and voting in elections, and educational attainment of children. Little change is expected in informal groups and interaction, church membership, and percentage of personal and farm items purchased. (DS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

RESIDENT OWNERS, HIRED MANAGERS AND HIRED, FULL-TIME WORKERS OF LARGE WISCONSIN FARMS: BACKGROUND-SES, FAMILY STRUCTURE AND BEHAVIORAL INTEGRATION CHARACTERISTICS

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Richard D. Rodefeld

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

Richard D. Rodefeld and Mark Lancelle*

Department of Agricultural Economics
and Rural Sociology
The Pennsylvania State University
University Park, Pennsylvania

August, 1978

*Assistant Professor and Graduate Research Assistant, respectively

Prepared for 1978 Rural Sociological Society meeting, August 1978, San Francisco.

ED160274

RC 010750

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

INTRODUCTION

While U. S. farms and the farm sector have experienced major changes in recent decades (Ball and Heady, 1972; Rodefeld 1978a), two change processes with wide ranging significance will be focused on initially. The first, highly visible and widely noted has been the decline in farm numbers and corresponding increases in farm size and farm work force and population numeric decline. These changes, brought about by a variety of factors--including the development and adoption of new technology--have had additional consequences for other farm, farm work force and population, rural community and urban sector characteristics (Rodefeld, 1974; Goss, 1976; Goss and Rodefeld, 1977; Flora and Rodefeld, 1978).

Less visible and widely noted has been the increased differentiation of farm organizational structure. While the latter concept can embrace a variety of farm characteristics, the focus here is on the interrelationships and patterning of farm land and nonland resource (capital) ownership, management and labor. For a variety of reasons--including settlement patterns and policy, farm technology, size and capital requirements, governmental programs and policies, the economy and nature of farm production--low levels of differentiation have prevailed historically (Rodefeld, 1974; Rodefeld 1978b). In terms of the farm sector as a whole, individuals and families managing farms on a daily basis have also owned high portions of all farm land and capital and provided a high portion of all farm labor. At the farm level, when classified according to their levels of differentiation on singular dimensions of structure--those with low levels between land ownership and management, capital ownership and management and management and labor[1] have dominated farm numbers in all states, regions, types of production and time periods and have dominated sales in most.[2] When classified

according to their levels of differentiation (high-low) on all these dimensions simultaneously, it appears the farm type with low levels on all dimensions has been the most important numerically and economically.[3] While definitive data on this farm type is lacking, farms with low levels of differentiation between land ownership, management and labor accounted for a majority of all farm numbers and sales in 1959[4] (Rodefeld, 1974; Rodefeld, 1978c). Farms with the latter characteristics have often been refered to as "family" or "family-type" farms.[5]

In recent decades, however, major changes have occurred in the conditions which led to and maintained low levels of structural differentiation for so long (Rodefeld, 1978b). As a result of these and perhaps other unidentified forces, levels of structural differentiation have increased. Levels of land and capital ownership and labor provision by resident farm managers have declined. Conversely, ownership by nonfarm individuals and corporations and the provision of labor by hired workers have increased. Farms with low levels of differentiation on each dimension of structure have declined relative to those with high levels on these dimensions. Farms with low levels of differentiation simultaneously between land ownership, management and labor (family-type) have declined relative to those farm types with high levels on one or both of these two dimensions. The decline has been most evident relative to the two types with high levels of management, labor differentiation (larger than family and industrial-types) [6] (Rodefeld, 1974; Rodefeld, 1978c). While definitive data is lacking, the farm type with low levels of differentiation on all its structural dimensions, has clearly declined relative to those with high levels on one or more.

If no alterations are made in the causal forces and conditions which have brought about increased structural differentiation and farm type change

in the past, then, a continuation of these changes is likely in the future. This raises the question of what the impact of such changes will be for other segments and levels of U. S. society. Existant knowledge suggests their impact on other farm characteristics, the farm work force and population and rural communities may be considerable (Rodefeld, 1974, 1978d, Rodefeld, et. al. 1978 Chapters 5 and 6).

First, ceteris paribus, levels and types of structural differentiation and farm type are highly related to farm size and work force and population density. Level of differentiation appears to be strongly and positively related to farm size and inversely related to work force and population density. Levels of management, labor differentiation appears to be more strongly related to these factors than the levels between land and capital ownership and management. One indication of the preceeding is that nationally in 1964, while tenant-type farms were slightly larger in size than family-type farms and industrial-type farms were slightly larger than larger than family-type farms--both of the latter types were 10 times larger on the average than the two former types. Based on existant empirical data and assuming a strong inverse relationship between farm size and work force numeric density, then, the relationships between levels and types of differentiation, farm types and work force density should follow those between the former characteristics and farm size.

While farm sizes would be expected to increase and farm and work force numbers to decline in the future as in the past, the preceding suggests these rates of change may be accelerated as a result of changes which will also be occurring in levels and types of differentiation and farm types. The same can be said for trends toward increased levels of concentration in land ownership and operation, capital ownership, production and sales. Unless

off-set by other processes, additional declines in farm work force and population numbers will further reduce the population numbers of rural neighborhoods and communities with consequent reductions in the sizes and/or numbers of their social and economic institutions. The magnitudes of the preceding changes would appear greatest when family or tenant-type farms are replaced by either larger than family or industrial-type farms (Rodefeld, 1974 and 1978d).

Second, changes in levels and types of structural differentiation and farm types defined in these terms will bring about changes in the status-set or positional composition of the farm work force. Changes in the background-SES, family structure and behavioral integration characteristics of the work force are expected because past research has found a strong relationship between the farm status-set or position occupied by individuals and families and their characteristics in these other areas. These relationships and relevant literature will be reviewed by examining the impact of the major changes in levels and types of structural differentiation on the family-type farm and the status-set composition of its work force.

Recall, that this farm-type has dominated U. S. farm numbers and sales historically and has low levels of differentiation on all the dimensions of structure emphasized in this paper: land ownership (LO) and management (M), capital ownership (CO) and management (M) and management (M) and labor (L). Symbolically this farm-type will be identified as the LO-CO-M-L type, with dashes (-) used to denote a low level of differentiation between the connected factors. The work force associated with farms of this type normally consists of one individual or family who simultaneously occupy the four major farm status-roles of land owner (LO), capital owner (CO), manager (M) and laborer (L) and provide for all or most of the role requirements associated with each of these statuses.[6a] Wisconsin data suggest that on the average, about 90 percent

of this farm type's work force occupy the land and capital owner-manager-laborer (LO-CO-M-L) status-set. Hired, nonowning, nonmanaging, laborers (L) account for the other 10 percent of the work force (Rodefeld, 1978d, p. 123).

Increased Land Ownership, Management Differentiation: LO/M

Increasing levels of differentiation between land ownership and management, high levels of which are denoted by a slash (/) between the adjacent factors (LO/M), will result in the decline of the family-type farm (LO-CO-M-L) and its replacement by tenant-type (LO/CO-M-L) farms. Correspondingly, individuals occupying the LO-CO-M-L status-set will decline while those occupying the LO and CO-M-L status-sets will increase. Very little is known about the characteristics of individuals or families occupying the LO status-set (land owners who do not manage or work their land). A high, though possibly declining percentage, are assumed to be retired farmers or farm widows who reside in the same area as the land they own. Increasingly, they may be nonfarm heirs or investors residing away from the land (Berry, 1964).

A good deal more information exists on the background-SES, family structure and behavioral integration characteristics of land and nonland owning managers (occupants of LO-CO-M-L and CO-M-L status-sets). When these two groups have been compared, nonland owning managers have generally been found to be younger, had similar or higher levels of education, subscribed to fewer newspapers and magazines, had lower percentage of farm owning fathers and fathers-in-law, were as likely born on a farm, had lower levels of income, wealth, living and residential stability, were less likely married, had similar or lower fertility levels and total family sizes, younger children and had lower percentages of children who remained in farming. Regarding behavioral integration, with the exception of integration into informal groups and the extensiveness of informal relationships, nonland owning managers generally had lower levels of integration into statuses associated

with formal voluntary organizations, churches, the polity and educational institutions. They were also less active in the roles associated with these statuses. When assessed, similar differences were reported for the wives and children of the two groups.

While a variety of explanations have been given for the observed differences, those related to background-SES differences have revolved around the number of years needed to acquire the funds for land downpayments, amounts of assistance from relatives, rates of return to land ownership, and security of tenure. Family structure differences have been explained largely by age differentials and the resources available to establish children in farming. Differences in levels of behavioral integration in social systems have been explained largely by references to differences in residential stability, security and certainty about future location, incomes, levels of living and age.[7]

Increased Capital Ownership, Management Differentiation: CO/M)

Increasing levels of differentiation between capital ownership and management, high levels of which are denoted by CO/M, will result in the decline of the family-type farm (and its dominant status-set (LO-CO-M-L) and an increase in the CO/LO-M-L farm type and status-sets. This type of change may result frm high levels of nonland resource rental or leasing, custom hiring and/or growing and involvement in vertically integrated relationships. Very little information exists about the occupants of the CO status-set (capital owners who do not own the land where the capital is used or located nor manage or work on this land). Included, however, are corporations and/or businesses of varying size, nonfarm investors and other farmers.

Information on the characteristics of noncapital owning managers (LO-M-L) is also limited. In a Louisiana study Heffernan (1972) compared the land

owning managers of farms producing broilers under contract and the land owning managers of family-type farms. While the proportions of capital owned by the managers was not reported, it was likely lower for the former group. The low or noncapital owning managers on the average were found to be younger, had fewer years of education and slightly higher incomes. Comparisons between renting managers (CO-M-L) and share operators and hired tenants (M-L) in 1960 revealed little difference in husband's or wife's age, family income, husband's earnings or residential stability. Limited information suggests few if any major differences in family structure between the groups (Rodefeld, 1974).

The limited background-SES differences reported to date between capital and noncapital owning managers suggest limited differences in behavioral integration as well. Heffernan found noncapital owning managers to have fewer total voluntary organization memberships, were less active in farm organizations but were more active in social and civic organizations. Few differences were found in rates and types of informal interaction and church membership. Nonowners were less active in churches, however. Levels of involvement in the polity and educational systems were mixed. In summary, differences between capital and noncapital owning managers to date have been limited. This may or may not be observed in larger more diverse samples.

Increased Management, Labor Differentiation: M/L

Increasing levels of differentiation between management and labor, high levels of which are denoted by M/L, will result in the decline of the family-type farm and dominant status-set (LO-CO-M-L) and an increase in larger than family-type farms (LO-CO-M/L) and its major status-sets. Previous research has found the work forces of larger than family-type farms to consist of from 10-15 percent land and capital owning managers (LO-CO-M) and from 85 to 90 percent hired, nonowning and nonowning laborers (L), either seasonal

or full-time depending on the type of production (Rodefeld 1974: 258-259).

Only two studies have compared the occupants of LO-CO-M-L and LO-CO-M status-sets (Heffernan 1972 and Goldschmidt 1946). Consistent findings were that the LO-CO-M occupants had higher income levels, greater years of education, higher membership and activity in voluntary organizations and higher levels of involvement in the polity. Inconsistent or limited differences were reported for informal church and educational participation. Goldschmidt found these occupants tended to seek their recreation and make pruchases in a nearby city and had little interest in community social life.

While the characteristics of LO-CO-M occupants will contribute to the overall characteristics of the larger than family-type work force, these characteristics will be determined in large measure by the hired workers who comprise most of the work force. Substantial differences have been observed in the past between both land and nonland owning managers (LO-CO-M-L and CO-M-L) and hired laborers (L). Hired laborers generally, have been found to be younger, as likely to be born on a farm, less likely to have father's and father's-in-law who were farm owners, fewer years of education, lower residential stability, incomes and levels of living and subscribed to fewer magazines and newspapers. While attempts to explain these differences have been limited, class position and intergenerational occupational inheritance have been mentioned. In addition, explanations for similar differences between land and nonland owning managers may be relevant.

While no information exists on the proportion of hired workers who are married, it should be lower than the other groups because of their younger average age. Hired workers have consistently been found to have higher fertility rates. This, in conjunction with their younger average age suggests they should have larger average family sizes, a larger number of children at home, fewer away from home and younger children. Explanations for differences in fertility rates have revolved around the lower educational and income levels

of and greater economic incentives for large families, of hired workers (Hathaway, et. al., 1968). Charlton (1954) found that children of owning managers were more likely to outmigrate than those of hired workers.

Regarding behavioral integration, hired workers consistently were reported to have lower levels of integration into statuses in formal voluntary organizations, churches, the polity and educational institutions. Activity within the roles associated with these statuses was also lower. The results for informal interaction were mixed but on the whole, lower levels were observed for hired workers. These differences have been explained largely by noting the strong positive relationships between levels of behavioral integration and those of residential stability, education, income, level of living, married status and presence of older children. In all cases, hired workers have been observed or are strongly suspected to have lower scores on these characteristics than either land or nonland owning managers.[8]

Increased LO/M + CO/M + M/L Differentiation

One additional type of change is when all of the dimensions of structure increase in differentiation simultaneously, i. e. LO/M, CO/M and M/L. In this case, family-type farms and their dominant status-set (LO-CO-M-L) will be replaced by industrial-type farms (LO-CO/M/L or LO/CO/M/L) and their associated status-sets. Little is known about the characteristics of those occupying the (nonmanaging and nonlaboring) LO, CO or LO-CO status-sets. The most highly publicized occupants have been large nonfarm corporations (Tenneco, Gulf-Western, etc.). However, it is likely that most industrial-type farms are owned by separate individuals, families or small groups of urrelated individuals. This was true for 76 percent of all such incorporated farms in Wisconsin in 1968 (N=102)[9]. A sample of 27 farms from this universe yielded 20 with identifiable major shareholders. Of these, 70 percent started their careers in occupations other than farming, 80 percent had nonfarm

occupations (the highest percentage of which were owners or executives of nonfarm businesses), and few resided in the same community as their farm.

The concern here, however, is with the characteristics of the resident work force of these industrial-type farms--in this case--hired, nonowning managers (M) and laborers (L). The major concern will be with hired laborers since as with LO-CO-M/L farm types, they account from 85-90 percent of the resident work force. Very little information exists on either of these specific groups, however. In 1964, one study reported that hired managers were younger, had higher levels of education and lower levels of residential stability than land owning managers (Moyer, et. al. 1969). No information exists specifically on the characteristics of hired workers or industrial-type farms. That information which exists on hired workers has already been reported in discussing the LO-CO-M/L farm-type and status-sets. It is assumed no differences exist in the characteristics of hired workers on these two farm types. Ideally, this assumption should be subjected to test.

The observed differences in characteristics of individuals and families occupying different farm status-sets or positions suggest changes in levels and types of farm structural differentiation and farm types will also result in changes to farm work force background-SES, family structure and behavioral integration characteristics.[10] These changes also have implications for the communities in which they occur. All other things equal, changes in a community's farm work force background-SES, family structure and behavioral integration characteristics will bring about changes in its compositional characteristics (levels of education, income, living, stability, etc.) population structure and functioning (age and sex distributions, fertility rates, age structure, dependency ratios and rates of outmigration) and the structure and functioning of community institutions and organizations (numbers, sizes, types, etc.).

Some support for these expectations are provided from past longitudinal and cross-sectional community studies. In communities and areas experiencing increased differentiation between land ownership and management, i.e. < LO-CO-M-L and > LO/CO-M-L farm types, reductions were observed in the numbers of churches and in support for schools, civic affairs and voluntary organizations (Taylor 1926, Fey 1935). When communities or areas dominated by either family or tenant-type farms have been compared, the latter generally were found to have lower rates of school attendance and educational attainment, and small numbers of voluntary organizations and churches, greater class distinctions, lower levels of living and in general, lower rates of involvement in social institutions and organizations of all kinds (Bizzell 1927, Lundquist and Carver 1927, Kolb and Brunner 1952, Taylor 1926, Stinchcombe 1961).

No community studies are known investigating the effects of increased capital ownership, management differentiation. A number of authors have suggested, however, that if this differentiation occurs as a result of involvement in vertically integrated contracts, then, the integrator is likely to supply the variable inputs and also process and market the output. These firms are not likely to be located in small rural communities, hence, the sales volumes of businesses here will be reduced, with many eventually failing (Breimyer and Barr 1972, Rhodes and Kyle 1973). Reduced managerial decision-making power and independence may also have some significance (Miller 1960).

While no known longitudinal assessments have been made of communities experiencing a change from family (LO-CO-M-L) to larger than family type (LO-CO-M/L) farms, a number of community cross sectional comparisons have been carried out. The most rigorous of these was carried out in California (Goldschmidt 1946). Two communities, one with a hinterland dominated by family-type farms, the other dominated by larger than family-type farms were compared and contrasted. Major differences were observed between them in their compositional, population and social system characteristics. The larger than family-type

farm community had adults with fewer average years of education, lower residential stability, median family incomes, levels of living, median age, a younger age structure, fewer voluntary organizations, churches, schools and retail businesses. The major explanation advanced for these community differences consisted of differences between hired workers and other occupational groups in their background-SES, family structure and integration characteristics and the higher percentage of hired workers in larger than family-type farm work force and community population.

Similar differences were observed in a partial replication in 1973 (Larose). Stinchcombe (1961) reports similar findings in a historical review and comparison of societies or regions dominated by family-type and those dominated by various types with high levels of management, labor differentiation (LO-CO-M/L, LO/CO-M/L, LO-CO/M/L, LO/CO/M/L).

No rigorous longitudinal or cross sectional studies have been carried out with hinterlands dominated by family and industrial-type farms. Those observations which have been reported, however, are similar to those just reviewed for family and larger than family-type farm comparison (Tetreau 1940, McWilliams 1942, Raup 1973, Bible 1972). Other effects of such a change have also been postulated (Breimyer and Barr 1972, Rhodes and Kyle 1973).

THE PROBLEM

In recent decades major changes have been manifested in the organizational structure of U. S. farms. Farm numbers have declined and sizes have increased. Levels of differentiation between land ownership, capital ownership, management and labor have increased. Farms with low levels of structural dimension on singular dimensions of structure have declined relative to those with higher levels on these dimensions. Family-type farms have declined relative to other types, particularly the larger than family and industrial-types. Farm status-sets containing all four major status-roles have declined relative to those containing three or fewer status-roles. The likely continuation

and perhaps acceleration of these changes in the future raises the question of their possible consequences for other farm characteristics and those of the farm work force and rural community.

Existant cross-sectional and longitudinal community studies are not adequate for this purpose. Few such studies have been carried out relevant to the impact of these farm structural change processes for community characteristics and change. There is a singular lack of relevant longitudinal studies. Relevant cross-sectional investigations are date , most were carried out in regions other than the Midwest, which may lessen their generality and with the exception of one study (Goldschmidt 1946) the research findings tend to be reported in very general terms. Community compositional characteristics, population structure and characteristics of the economic, educational and informal social systems were not usually assessed. No studies were found examining the possible community consequences of variation or change in the levels of capital owner, manager differentiation. No rigorous analyses were found investigating the possible implications of increases in industrial-type farms for rural communities.

Most of the research relevant to the issue of future changes in farm organizational structure and their possible consequences has reported various characteristics of individuals and families occupying various status-sets or positions in the farm work force. This research is important for a number of reasons. First, the background-SES, family structure and integration characteristics of farm work force individuals and families have been postulated as major intervening linkages through which changes in farm structural differentiation and type are transformed into community, compositional, population and social system changes. The greater the comprehensiveness and specificity of the individual level data, the greate its explanatory and predictive power should be for community characteristics and their change.

In addition, given the deficiencies of relevant community studies, the individual level data consistutes the greatest portion of the existent emperical base for estimates and predictions about the likely impact of future farm changes on rural communities. As important as this research is, however, it contains a number of major deficiencies, suggesting qualifications for many of the results. That these results may have limited utility and generality as a basis for predicting the consequences of future changes in farm organizational structure is also suggested.

First, the measurement of farm work force background-SES, family structure and social system integration characteristics has been very inadequate. Father's occupation, respondent's residence while growing up, years of formal agricultural education, job background and stability, residential stability within the community and county, wealth and level of living tend not to be assessed frequently or simultaneously with measures of social system integration. In most cases, age was the only family structure characteristic reported. Integration into the social systems of the polity, education, economy and into informal groups were not usually assessed. When such assessments were made, the number of system statuses included were few. Rarely were assessments made on the types and amounts of role activity in social systems.

A second shortcoming in this research was that little information was obtained on the characteristics of work force member wives and children. This is a major shortcoming since these groups account for a majority of the farm population and perhaps the work force on some farm types. The normal assumption appears to be that all family members will have similar levels of integration and other characteristics. The empirical base for this assumption is very limited, however.

A third problem is that most of the research was carried out in 1930's and early 1940's. The levels of income, education and living have risen

considerably since then for all segments of the farm work force. These and other changes may have reduced or eliminated earlier differences between status groups in family structure and behavioral integration characteristics.

A fourth shortcoming is that previous data on behavioral integration did not distinguish between integration into local and nonlocal social systems. This may be a problem if the researcher's major interest is with social systems in the respondent's community of residence. Scores which do not control on location may be quite misleading if one assumes all observed activity is local. This appears less of a problem with involvement in churches and elementary schools than in the remaining areas.

Fifth, in only a few studies were controls employed in the analysis. Significant differences have been reported between farm status groups in their background-SES, family structure and integration characteristics. Primarily on the basis of nonfarm research, it is expected all of these variables will be highly interrelated. What is not known is the extent to which differences in family structure and integration are a function of occupational position versus being a function of various background-SES characteristics.

A sixth shortcoming, with major implications for the prediction of consequences likely to accompany future changes in levels and types of farm differentiation, types and status-sets is that little information exists on the characteristics of individuals and families occupying many of these status-sets or groups. In terms of the status-sets emphasized in this paper, this applies to the LO, CO and LO-CO status-sets associated with tenant, industrial- and CO/LO-M-L farm types; the LO-M-L status-set, the LO-CO-M and M status-sets associated with larger than family and industrial-type farms and hired laborers (L) on the two last farm types. Information is particularly lacking for Midwestern hired laborers. Other than a limited amount of 1960 Census data on SES and family structure characteristics, only one study was found

which assessed the characteristics of full-time hired farm workers in the Midwest (Schuler 1938a). The remaining studies were carried out in other regions on seasonal and/or migratory workers. Many were carried out in the 1930's and early 1940's.

These points are of considerable significance because if no major changes occur in the dominant types of production, increased management, labor differentiation and larger than family and industrial-type farms will require full-time year-round hired workers and few seasonal or migratory workers. While empirical data is lacking it is not unreasonable to assume hired full-time workers will be older, and have higher levels of education, job and residential stability, income, wealth and living than seasonal or migratory workers. If so, full-time workers might also have smaller family sizes and higher levels of behavioral integration than reported in past studies. As a result, the magnitude of differences between them and other status groups might be reduced.

The greatest problem associated with predictions of the individual, work force and community consequences associated with future farm structural and status-set changes, revolves around the issue of interaction effects. Trend data suggest increases in farm size, levels of structural differentiation, and changes in work force status-set composition will occur simultaneously. One implication is that in the future, the occupants of all farm status-sets will be located on much larger farms. Because of this, the background-SES, family structure and integration characteristics of these individuals and families may be markedly different from those of their past or present counterparts. If these assumptions are correct, then predictions about the effects of future farm size, type and status-set changes, based on past research findings may require modifications. All other things equal--future community changes will be a function of the independent effects or changes in farm size, type and status-sets and their interaction.

METHODOLOGY

Research addressing the preceding issues was formulated and carried out in Wisconsin in 1960 and 1970.[11] The approach taken was that of a cross-sectional survey. The greatest initial need was for a listing of state farms which contained sufficient numbers of the farm sizes and types which were increasing at a rapid rate (large family-type, larger than family and industrial-type). Such a list was available since in an earlier stage of the project all legally incorporated state farms had been enumerated and surveyed (N=472). These farms were clearly among the largest in the state, averaging 969 acres operated (versus 179 for the state) (Rodefeld and Wilkening, 1973).

After refining this group by excluding smaller-sized farms and those with characteristics not highly comparable with other Wisconsin and Midwestern farms, 266 farms of the family, larger than family and industrial-type remained.[12] One hundred and thirty-three of these farms were randomly selected for more intensive study and interviewing purposes. Interviews were completed on 110 farms including 38 family, 45 larger than family and 27 industrial-type farms. These farms were clearly among the largest in the state. Average acres operated, for instance, were 583,907 and 2129, respectively (Rodefeld 1974: 395). Major types of production on these farms were comparable with the state as a whole, alghough the two hired worker types were more involved in vegetable and canning crops.

Interviews were then carried out with the primary manager on each of the selected farms (LO-CO-M-L status-set=38, LO-CO-M=45, M=27) and a random sample of all hired full time workers on these farms (L=70). Detailed information was obtained on the background-SES, family structure and behavioral integration characteristics of the respondents, their wives and children. These measures have been listed and described in the results section.

For the purposes of this analysis, the land and capital owning manager groups have been combined. While major differences were hypothesized between

them in their levels of income, wealth and living, few rationales existed to predict other differences. These expectations were subjected to test in 203 comparisons. Of these only 25 were statistically significant. Most of these were differences in levels of income, wealth, living and voluntary organization membership. Hired, full-time workers on larger than family and industrial-type farms were also combined. Of 181 comparisons between members of these groups, only six were statistically significant.

The formal hypotheses stating the expected differences between the three comparison groups will in each case precede the tables reporting the background-SES, family structure and behavioral integration comparison and results. Group means and proportions will be computed for the reported indicators. Hypotheses stating the expected differences between the three comparison groups will be tested by determining the significance of differences in means (t scores) and proportions (z scores) between these groups. One tailed significance levels will be used in testing directional hypotheses and two tailed levels when no difference is expected. Score frequencies and standard deviations have been reported elsewhere (Rodefeld 1974) and will not be reported here. Generally, there was little or no missing data.

RESULTS

Farm Occupation and Background SES

Past research has indicated that landowning managers, nonlandowning managers, and hired workers are likely to differ on a variety of socioeconomic characteristics. When landowning managers are compared with nonlandowning, hired managers it will be expected that although similar proportions have been raised on farms, owner-managers are more likely to have had farmowning fathers, and their fathers as a group would exhibit a higher average occupational rank. Wives of owner-managers are expected to have fathers with higher occupational rank and are more likely to have come from nonfarm backgrounds. Both owner-managers and their wives are likely to be better educated than hired managers and their wives. Owning managers are expected to have entered the work force at an older age, held fewer nonfarm jobs and total jobs. Their wives are less likely to be working off the farm. Owning managers should have higher levels of residential stability, income, wealth and levels of living. The same differences are expected between owner-managers and hired workers and between hired managers and hired workers. Table 1 reports the results of the comparisons.

Most of the hypothesized differences between owner-managers and hired managers were supported in this study. Owner-managers were more likely to have farmowning fathers, had higher levels of job and residential stability, wives who were more likely to have been raised in nonfarm locations, a lower proportion of wives working off the farm, and higher levels of income, wealth and living. Noteable exceptions were those comparing the average occupational rank of respondents' fathers and the fathers of respondents' wives, years of education, and age at first job. As hypothesized, there was no significant difference in percentages raised on farms.

Table 1.--Means, Proportions, and the Significance of Their Differences for Indicators of Personal Background, Job Background and Stability, Residential Stability, and Economic Characteristics for Farm Owner-Managers (OM), Hired Managers (HM), Hired Workers (HL) and Wives

Indicators of Personal Background and SES Characteristics	Means			Sig. of Diff.		
	OM	HM	HL	OM/HM	OM/HL	HM/HL
Respondent						
Age	45.8	45.0	42.0	-	.05	-
Father's occupation[1]	6.7	6.3	5.7	-	.001	-
Proportion of fathers farm owners	.78	.52	.43	.01	.001	-
Residence before age 15[2]	1.5	1.5	1.5	-	-	-
Years of education	12.3	11.9	10.2	-	.001	.001
Years of agricultural education[3]	5.2	4.2	2.3	-	.001	.05
Respondent's Wife						
Age	44.2	42.6	39.5	-	.01	-
Father's occupation[4]	5.9	6.4	5.0	-	.05	.01
Residence before age 15[5]	2.7	2.0	1.8	.05	.001	-
Years of education	12.7	12.6	10.9	-	.001	.001
Job Background and Stability						
Age at first job	19.0	19.7	17.6	-	.001	.001
Number of nonfarm jobs held	.8	1.5	1.0	.01	-	-
Number of jobs held and farms owned[6]	3.2	4.4	4.0	.001	.001	-
Proportion of wives with jobs outside the home[7]	.19	.35	.42	.05	.01	-
Residential Stability						
Years on present farm	24.7	11.3	8.3	.001	.001	.05
Years lived in community	33.3	18.5	19.6	.001	.001	-
Years lived in county	37.6	23.3	24.3	.001	.001	-
Economic Characteristics						
Gross monthly income (00's)[8]	83.8	14.1	5.2	.001	.001	.001
Gross family monthly income (00's)[9]	89.4	17.6	6.2	.01	.001	.001
Net family monthly income (00's)[10]	15.2	9.5	5.2	-	.001	.001
Gross worth (000's)[11]	277.1	75.4	18.4	.001	.001	.001
Net worth (000's)[12]	208.9	61.7	15.9	.01	.001	.001
Level of living index[13]	17.2	15.8	13.4	.01	.001	.001

Footnotes for Table 1

[1]This score reports father's occupation at the time of the respondent's first full-time job. The response categories for this indicator were: 0=laborers, except farm and mine; 1=farm laborers, unpaid family workers; 2=private household and service workers; 3=operative and kindred; 4=crafstmen, foremen and kindred; 5=sales workers; 6=clerical and kindred; 7=farm owners and managers; 8=non-farm managers, officials and proprietors; and 9=professional, technical.

[2]The response categories for this indicator were: 1=on a farm; 2=in the country, not on a farm; 3=in a village of less than 2500; 4=in a town of 2500 to 10,000; and 5=in a city of 10,000 or more.

[3]This is a cumulative index of the number of years education received from the following sources: 4-H Club member; vocational agriculture; young or adult farmer classes; veteran's training; agr. short courses; agr. college; and other.

[4]Assessed at time of respondent's marriage. The same response categories were used as in footnote 1.

[5]The same response categories were used as in footnote 2.

[6]This number is the sum of nonowning farm jobs, nonfarm jobs and number of separate farms owned.

[7]Wives with jobs outside the home received scores of 1 and those with no outside job received scores of 0.

[8]Average monthly receipts from sales (owners) or monthly gross salary (hired managers and workers) including the value of nonmonetary job benefits (housing, animal and vegetable products, profit sharing and insurance).

[9]Respondent's monthly receipts or salary plus nonfarm related income (other business, job, custom work, stock, dividends, etc.) plus average monthly income from wife's employment.

[10]Respondent's gross monthly receipts or salary, minus taxes and usual deductions plus monthly nonfarm income and wife's monthly income minus 20 percent (used as an estimate of taxes and usual deductions) for last two income sources.

[11]Total value of everything owned by respondent.

[12]Value of everything owned minus all indebtedness.

[13]This is a cumulative index of the number of 20 different household and living items possessed by the respondent. The complete list of these items can be found in Appendix E-1.

Expectations concerning owner-manager, hired worker differences were supported in almost all instances. The only hypothesized difference not supported was that concerning the number of nonfarm jobs held. While there was no significant difference in the percentages raised on farms (as hypothesized) owner-managers were more likely to have a farmowning father and their fathers had a higher average occupational ranking. Owning managers had a higher average level of education, entered the work force at an older age, held fewer jobs, exhibited greater residential stability, and had much higher incomes, wealth, and levels of living. Wives of owner-managers were less likely than those of hired workers to have been raised in farm backgrounds, had achieved a higher average level of education, were less likely to be working away from home, and had fathers with a higher average occupational ranking.

Hypothesized differences between hired managers and hired workers received partial support. Hired managers had a higher average level of education, had entered the workforce at an older age, and had higher incomes, levels of wealth and living. Their wives had a higher level of education than wives of hired workers and had fathers with a higher average occupational rank. Significant differences were not observed, however, between the average occupational ranks of respondent's father's, the percentages of fathers who were farm owners, the number of nonfarm and total jobs held, the residences of wives when they were growing up, and the proportions of wives working outside the home. Although hired managers had resided on their present farms for a higher average number of years, there were no significant differences in the average numbers of years lived in the community or in the county.

Farm Occupation and Family Structure

Despite inadequate data, some hypotheses can be derived from the research reviewed earlier. Owning managers are likely to have the oldest average age, hired workers the youngest. If age and being married are positively related,

owner-managers are likely to have the highest percentage married, hired workers the least. There is likely to be no difference between married owner-managers and hired managers in their number of children, but hired workers are likely to have the most. Expected age differences lead one to predict that owner-managers will have older children than hired managers or hired workers, with the most children away from home and the fewest home. Hired workers are likely to have the youngest children, with the most home and fewest away from home. Given age and fertility differences observed in the past, hired workers are likely to have the largest family sizes at home, but owner-managers may exceed hired managers in this respect. Because the children of farm owners are more likely to be able to acquire positions on the home farm, it can be expected that higher percentages of them are likely to remain in the home community upon completing school. No difference is expected between the hired manager and hired worker groups in this respect, however.

Little support was generated for the hypothesized family structure differences between owner-managers and hired managers. No statistically significant differences were found between the average ages of the respondents or those of their wives. Expected differences in the proportions married, average numbers of total children, average numbers of children away from home, and average ages of children (predicated largely upon expected differences in respondents' ages) were not supported. Hired managers tended to have somewhat larger numbers of children and this difference apparently contributed to the statistically significant difference in the number of children at home, their larger average family size at home, and to the difference in average ages of the youngest children. As expected, a significantly higher proportion of owner-manager children remained in the home community upon completing school.

Not all of the owner-manager, hired worker comparisons were as expected. Statistically significant, and expected, differences indicate that owning

Table 2.--Means, Proportions and the Significance of Their Differences for Indicators of Family Structure and Process for Farm OM's, HM's and HL's

Indicators of Family Structure and Process	Means			Sig. of Diff.		
	OM	HM	HL	OM/HM	OM/HL	HM/HL
Proportion married	.91	1.0	.74	-	.01	.01
Age: Respondent	45.8	45.0	42.0	-	.05	-
Respondent's wife	44.2	42.6	39.5	-	.01	-
Number of Children:						
Married Respondents						
At home	2.3	3.1	2.1	.05	-	.05
Away from home	1.1	.9	1.1	-[2]	-	-
Total	3.4	3.9	3.2	-[2]	-	-
Family size: At home[3]	4.0	5.1	3.3			
Age of youngest child at home[4]	3.8	3.2	2.8	-	.01	-
Age of oldest child at home[4]	5.1	5.0	4.0	-	.001	.01
Residence of children: Schooling completed[5]						
Proportion in respondent's community	.44	.19	.29	.05	.05	-[3]
Proportion in respondent's community or county	.52	.33	.47	-	-	-[3]

[1]One-tailed significance levels were used unless specified otherwise.

[2]Two-tailed test.

[3]The significance of differences were not computed.

[4]This score varied from 1-7 and was computed only for those respondents with children (a child) presently at home. The scores and coding categories were: 1=less than 3; 2=3; 3=6-11; 4=12-14; 5=15-17; 6=18-20; and 7=21 or more.

[5]It was possible to determine children's locations vis-z-vis the respondent's community of residence from the present addresses of the children.

managers were more likely married, that they and their wives were older, had older children at home, and had children who were more likely to remain in the home community after completing school. Contrary to expectations, married hired workers did not have significantly larger average numbers of children and family sizes despite past research findings and observed differences in socioeconomic status. Hired workers and their wives tend to be younger and to have younger children, but the age differences are small enough to prevent us from attributing the lack of a difference in average family sizes to this fact.

Hired manager, hired worker differences also are only partially in accord with expectations. As expected, hired managers and their wives tended to be older, were more likely to be married, and had older children (the latter two differences being statistically significant). However, hired managers tended to have more children with fewer away from home, a larger average family size, and a statistically significant larger average number of children at home. These differences and the differences in average family sizes between owner-managers and hired workers suggest that contrary to previous findings, income and education may be positively related to fertility for these groups, although that does not explain the lack of greater differences between owner-managers and hired managers. As expected, there was no statistically significant difference in the proportions of children who remained in the community after school was completed, although larger proportions of hired worker children appear to have remained.

Farm Occupation and Behavioral Integration

The general hypothesis to be examined here is that owner-managers, their wives and children, have the highest levels of social system integration, followed by hired managers, and finally by hired workers. Owner-managers and their families are expected to occupy the greatest number of positions and

engage in the most role activity in each system. Members of hired workers and their families are hypothesized to account for the lowest average numbers of positions and have the lowest levels of activity. Past research in the areas of formal voluntary organizations, informal groups, and religious and political institutions lends considerable support to this hypothesis. The same relationships are assumed to hold for educational and economic social systems at the local level. Each of these social systems will be examined and discussed. Table 3 reveals the results of this analysis.

As expected, the average total number of formal voluntary organizations to which owner-managers belonged was much higher than that for hired managers and the average for hired managers was significantly higher than that of hired workers. Contrary to expectations, differences between the wives of owner-managers and hired managers, between the children of each, and between the total family averages for these two groups were not statistically significant. These differences were very large and significant when comparing owner-managers with hired workers, and hired managers with hired workers, as predicted. Similar results were observed when memberships in local organizations and activities within total and local organizations were assessed. Finally, the results revealed that while owner-managers belonged to a significantly larger number of farm organizations (local and total), differences between them and hired managers in nonfarm organizational memberships were not significant, although hired workers remained significantly lower on both measures (Rodefeld, 1974: 449-455).

The hypothesized relationship between occupation and informal group integration received only partial support. There were no significant differences between owner-managers and hired managers on measures of informal group participation. This is despite the latter groups lower rates of job and residential stability and socioeconomic status. Owner-managers did not

Table 3. Means, Proportions and the Significance of Their Differences for Indicators of Integration in Formal Voluntary Organizations, Informal Groups, Churches, the Polity, the Educational System and the Economy for Farm OM's, HM's, HL's and Family Members.

Indicators of Integration in:	Means			Sig. of Diff.		
	OM	HM	HL	OM/HM	OM/HL	HM/HL
Formal Voluntary Organistions (Total)						
Organizational Memberships						
Respondents	2.9	1.5	.4	.01	.001	.001
Wives	.75	.93	.17	-	.001	.001
Children over 5[1]	3.6	3.7	2.1	-	.01	.05
Total Family[2]	6.3	6.0	1.9	-	.001	.001
Informal Groups						
Number of "very close friends":						
Total[3]	27.1	26.8	24.0	-	-	-
In the community[4]	13.2	15.8	12.7	-	-	-
Activities with friends and neighbors (index)[5]	17.4	18.1	14.3	-	.001	.001
Activities with relatives (index)[6]	16.2	15.3	14.7	-	.05	-
Percentage of "very close friends" who are farmers or farm wives[7]	24.9	27.4	35.8	-	.01	-
Number of relatives within 30 miles	25.5	18.1	19.0	-	.05	-
Number of relatives in community	8.7	6.5	9.3	-	-	-
Churches						
Proportion members[8]	.84	.96	.84	.05	-	.05
Proportion members of community church[9]	.70	.74	.60	-	-	-
Monthly church attendance						
Respondent	2.6	3.0	2.3	-	-	.05
Wife	2.8	3.4	2.8	.05	-	-
Index of church activities						
Respondent[10]	.70	.70	.20	-	.001	.001
Wife[11]	1.5	1.4	.6	-	.001	.01
Children over 5[12]	1.1	1.3	.7	-	.05	.01
Total[13]	2.9	3.3	1.1	-	.001	.001
Weekly church donation($)[14]	7.40	7.90	2.10	-	.001	.001

Table 3. Continued

Indicators of Integration in:	Means OM	HM	HL	Sig. of Diff. OM/HM	OM/HL	HM/HL
The Polity						
Percentage of eight recent elections eligible for and voted in[15]	83.6	69.0	48.3	.01	.001	.001
Index of political activities over the last 5 yrs.[16]	4.6	4.3	1.0	-	.001	.001
Index of community and county leadership positions held in last five years[17]	.7	.8	.2	-	.001	.001
Proportion voting in 1969 state and local election	.75	.42	.19	.001	.001	.01
Amount of interest in local politics[18]	2.2	2.0	1.6	-	.001	.01
Amount of interest in national politics	2.4	2.1	1.9	.05	.001	-
The Educational System						
Proportion with a Child over 5 who:						
Were on local school board in last 5 yrs.	.12	.04	.11	-	-	-
Voted in last school board election	.55	.44	.07	-	.001	.001
Years of adult farmer classes	.65	.35	.06	-	.01	.05
Number of PTA's or Mothers clubs belonged to by wife with child over 5	.14	.35	.02	.05	.05	.001
Number of children over 5 who have participated in school activities (index)[19]	6.3	5.7	3.3	-	.01	.01
Proportion of adult children who have 13 or more years schooling[20]	.53	.26	.20	.01	.001	-
The Economy						
The purchasing of 11 personal goods and services:						
Numbers bought in community[21]	4.8	5.2	4.7	-	-	-
Percentage bought in community when available[22]	61.6	62.4	56.5	-	-	-
The purchasing of 11 farm goods and services						
Numbers bought in community[23]	3.9	3.5	-	-		
Percentage bought in community when available[24]	50.6	43.6	-	-		

Footnotes for Table 3

1. This score is equal to the number of organizations ever belonged to (past or present) by each of the respondent's children summed over all of the respondent's children. The referrents in the eliciting question were: 4-H, FFA, FHA, Cub Scouts, Boy Scouts, Girl Scouts, Breed Assocs. and other.

2. This score was computed by summing the number of organizations belonged to by the respondents, wives and children in each comparison group and dividing by the number of respondents in each.

3. Based on the response to: "About how many individuals are there whom you personally consider as 'very close' friends?"

4. Number of all "very close" friends who live in respondent's community of residence.

5. This is a cumulative index score ranging from 5-26 which assesses the frequency of five types of informal activity: visting, attending parties, engaging in recreational activities, letter writing, and social telephone calls. The response categories and assigned weights for the first four activities are: less than twice a year=1; about once every 3 months=2; about once a month=3; about once every 2 weeks=4; and, about once a week or more=5. Social telephone calls had a sixth response category "more often" (than once a week) which received a weight of 6. For those respondents with one or two missing data values to the five questions, the means for those questions responded to (rounded to the nearest whole number) were used in computing the total score.

6. The same five areas of activity were assessed as described in the preceeding footnote and the same response categories, weights and procedures were followed.

7. This score is equal to the number of 'very close' friends who were farmers or farm wives divided by the total number of 'very close' friends (x) 100.

8. Based on an affirmative response to the question "Are you a member of a church?"

9. Based on whether the respondent was a member of a church located in his community of residence. Nonchurch members received scores of zero.

10. This is a cumulative index score with a possible range of 0-8 and equals the number of 8 nonattendance church activities engaged in by the respondent over the previous five years. The activities were: men's group, married couple's group, choir, a youth group, Sunday School, church officer or committee member, other (usher, commentator), and other (fund raising, church events, Gideon, etc.). Nonchurch members received scores of zero.

11. This is a cumulative index score with a possible range of 0-7 and equals the number of 7 nonattendance church activities engaged in by the respondent's wife over the previous five years. The activities were: women's group, choir, a youth group, Sunday school, church officer or committee member, church supper, festival, wedding or funeral, and other. Zeroes were recorded for nonchurch members.

12. This is a cumulative index score with a possible range of 0-5 and equals the number of 5 nonattendance church activities engaged in by any of the respondent's children exceeding five years of age over the previous five years. The activities were: attended Sunday school, taught Sunday school, belonged to a church youth group, other (choir), and other (mass server, general church social functions and parochial school attendance).

13. This is a cumulative index score with a possible range of 0-2o and is equal to the number of nonattendance church activities engaged in by the respondent, respondent's wife and respondent's children over the previous five year period. Zeroes were recorded for wives and/or children when not present.

14. Based on responses to the question "About how much money do members of your household (family) contribute to the church each week?"

15. The individual respondent scores were computed by dividing the number of eight recent elections voted in by the number of the eight elections eligible for. Eligibility was defined in terms of the respondent being 21 years old at the time of each election. The eight elections assessed were the: 1960 Presidential; 1964 Presidential; 1966 Governors; 1968 Presidential Primary; 1968 Presidential; 1968 Governors; 1969 Spring--state and local; and the last local school board election.

16. This is a cumulative index score with a possible range of 0-11 which equals the number of 11 categories or types of political activity engaged in by the respondent over the five years prior to the interview. The 11 activitis were: belonged to a political party; held an office in a political party; was elected or appointed to a government job; gave money to help someone's campaign; went to political meetings, rallies, etc. connected with an election; worked to help a candidate in his campaign; wore a political button, displayed a car bumper sticker or allowed name to be used in connection with a candidate; talked to people about public problems; talked to community leaders, government officials or politicians; talked to people to get them to vote for or against a candidate or issue; and written a letter to a political representative about any problem.

17. This is a cumulative index score with a possible range of 0-11 and the score recorded for each respondent was equal to the number of 11 public and/or leadership positions held by the respondent in the five years preceeding the interview. The 11 positions assessed were: five years preceeding the interview. The 11 positions assessed were: county ASC chairman; on ASC committee; volunteer fireman; township chairman; on township board; on county agricultural committee; on extension planning committee; on county board; leader of a 4-H club; and on a local area drainage committee.

18. The scores for this and the next item were based on the responses to the questions "Generally speaking, how interested are you in <u>local</u> politics?" "<u>National</u> politics? The response categories for each question and their assigned weights were: not much at all=1; somewhat=2; and a great deal=3.

19. This is a cumulative index score reporting the extent of the respondent's children's involvement in seven different extra-curricular school activities: sports, band, plays, choir or glee club, class officer, clubs, and cheerleader or little league. The index score is equal to the summed number of the respondent's children who had ever participated in each of these seven activities. Hence, the theoretical range of the score is 0-7 (X) the maximum number of reported children.

20. These scores were computed by dividing the total number of children who had received 13 or more years of education (who had completed their schooling) by the total number of children who had completed schooling.

21. The 11 personal goods and services assessed were: groceries, clothes, doctor, dentist, medicine or drugs, banking, car repairs, weekly newspaper, daily newspaper, appliances, and movies. The names of the places (towns) where the majority of each good or service was purchased were obtained. Given the names of the places where the majority of each good or service was purchased the number purchased in the respondent's community was determined and recorded for each respondent.

22. This score is equal to the number of goods and services purchased by the respondent in his community divided by the number of the 11 goods and services available in the respondent's community (x) 100.

23. The different farm goods and services assessed were: tractor gas and oil, tractors, tractor repair, new machinery, fertilizer, herbicides and pesticides, seed, feed grinding, banking, long-term loans, and lawyer for farm. The same procedures were followed here as described in footnote 21.

24. This score is equal to the number of goods and services purchased by the respondent in his community divided by the number of the 11 goods and services applicable to his farming operations and available in his community (x) 100.

differ greatly from hired workers in their numbers of friends and relatives (total or in the community), although they engaged in more activities with friends, neighbors, and relatives. Owning managers had a lower percentage of close friends who were farmers or farm wives and had a larger number of relatives within 30 miles. The only statistically significant difference between hired managers and hired workers was that of index scores on activities with friends and neighbors. Evidently, differences in socioeconomic status are of limited significance in predicting rates of participation in informal groups for these farm status-groups. The fact that all three groups had lived within the area for long periods of time, with a large number of relatives also present locally, likely alleviated the effects of other socioeconomic differences.

The hypothesized relationship between farm status groups and religious participation were only partly supported. None of the hypothesized owner-manager, hired manager differences were supported. On the contrary, hired managers had a statistically higher rate of church membership and their wives had a higher rate of church attendance than owner manager wives. No statistically significant differences were observed between owning managers and hired workers in the proportions who were church members, who belonged to a local church or in their or their wives' rates of church attendance. Owning managers, their wives and children were more active in nonattendance church activities and gave larger monetary contributions to the church than hired workers and their families. All of the differences expected between hired managers and workers were observed, although two were not statistically significant (community church membership and respondents' rate of church attendance). Expected owner-manager, hired worker differences in church membership and attendance may not have been observed because of the high percentage of the latter group which

was born and raised in the same area as the church they belonged to. The lack of significant differences between the owner-manager family averages and those for hired managers was not expected. Apparently, hired managers had sufficient socioeconomic status to offset the effects of low rates of job and residential stability. Further, they had resided in the same community for an average number of years sufficient to allow them to integrate into the community.

Considerable support was generated for the hypothesized relationship between status group and political integration measures. Expected differences between owner-managers and hired managers in their voting rates and in their interest in national politics were supported. This was not true for measures of political activities and leadership positions or interest in local politics, however Expected differences between owner-managers and hired workers were found for all measures of political integration at statistically significant levels. All but one measured difference between hired managers and hired workers was statistically significant in the predicted direction.

When examining integration into the educational system, it again appears that the hypothesized relationship is supported when comparing owner-managers to hired workers and hired managers to hired workers, but not when comparing owner-managers to hired managers. The only two significant differences between owning and hired managers revealed that the owners' children had achieved a significantly higher average level of education and that wives of hired managers were more often members of PTAs and Mothers' Clubs. All of the expected differences between owner-managers and hired workers were observed except the percentages who had served on school boards. With the exception of school board membership and the educational achievement of their children, differences between hired managers and hired workers were statistically significant in the predicted direction.

No support was generated for the hypothesized relationship between economic integration and status group. When comparing numbers and percentages of eleven personal goods and services purchased in the local community, no significant differences were detected between the three groups. When owner-managers were compared with hired managers on the basis of the number and percentage of eleven farm related goods and services, again no significant differences were detected. Generally, the lack of differences were observed for each of the 22 various goods and services assessed. Owning managers did get higher percentages of their tractors, tractor repairs and feed grinding locally.

Two other possible intervening variables were also assessed in the analysis: community characteristics and self-to-community status similarity. It was suspected that either or both of these two might explain some of the differences between the status groups with higher status owner-managers possibly benefitting disproportionately from their location and residential stability. The results indicated that there were no significant differences between the three groups in the populations of their community's central place, the average numbers of miles from residence to central place, the proximity of other centers, and the consistency with which they defined their community boundaries (Rodefeld, 1974:436). Assessing their perceived status similarity (income, religion, ethnicity, political party) with the community at large yielded unexpected results, with hired managers and hired workers most often expressing greater perceived similarity to the community when compared with owner-managers (Rodefeld, 1974:436). It was therefore concluded that neither of these variables had a significant influence on explaining differences in behavioral integration.

Disscussion

In recent decades major changes have been observed in the structural characteristics of U.S. farms. What appears to be one of the more significant changes is the increasing level of differentiation between land ownership, capital ownership, management and labor. As these levels of differentiation have increased, farms with low levels of differentiation on one or more of these structural dimensions have declined relative to those with higher levels on these dimensions. Farms with low levels of differentiation on all these dimensions simultaneously, (the LO-CO-M-L type) the historically dominant family-type farm, has declined relative to other types with high levels of differentiation on one or more dimensions of structure. In particular, farms with high levels of management, labor differentiation (M/L) i. e. the larger than family (LO-CO-M/L) and industrial (LO-CO/M/L) types have been increasing at a rapid rate.

While numerous consequences have been suggested for a continuation of these particular farm-type trends, one immediate consequence is change in the status-set composition of the farm work force. For instance, the replacement of family-type farms (LO-CO-M-L) by larger than family-type farms (LO-CO-M/L) will result in the decline of the land owner-capital owner-manager-laborer status-set (LO-CO-M-L) and the individuals and families occupying this status-set. Increases will be observed in the LO-CO-M and L status-sets and the number of individuals and families occupying these status-sets. The replacement of family-type farms by the industrial-type farm considered here (LO-CO/M/L and LO/CO/M/L) will result in the decline of the LO-CO-M-L status-set and its occupants and increases in the LO, CO, LO-CO, M and L status-sets and the numbers of individuals and families occupying these sets.

Past research suggests these changes may have considerable import for other characteristics of the farm workforce. In general, the farm status-set or position

occupied by individuals and families has been found to be highly related to their background-SES, family structure and behavioral integration characteristics. This suggests the proposition that if major changes occur in status-set composition of the workforce and the distributions of individuals and families in them, changes will also occur in the background-SES, family structure and integration characteristics of the work force. The existant knowledge base was found to contain a number of deficiencies, however, precluding estimates of the types and magnitudes of changes in work force characteristics likely to result from a continuation of the farm type and status-set changes previously identified.

The results of research designed to fill some of the existant data gaps in this area have been reported in this paper. Detailed information was collected on the characteristics of individuals and families occupying the major status-sets associated with large family, larger than family and industrial-type farms. (LO-CO-M-L, LO-CO-M, M and L). The characteristics of these four status-set groups and the difference between the groups in these characteristics have been reported in this paper.

Generally, most of the hypothesized differences between the owning manager groups (LO-CO-M-L and LO-CO-M) and the hired manager group (M) were not supported. It appears the characteristics of nonland owning managers (mostly of the CO-M-L type) reported in earlier research may have limited generality vis a vis the hired, nonowning managers of large, industrial-type farms. For the most part, hired managers have characteristics more similar to managed farms. Most of the hypothesized differences between the owning manager groups and hired full-time workers and between hired managers and these workers were supported. For most background-SES indicators, expected differences were supported. This was not true for family structure indicators, however. In particular, hired workers had lower fertility rates, and smaller family sizes than

the two manager groups. Expected differences between the manager groups and hired workers for indicators of social system integration were largely supported for voluntary organizations churches, the polity and education institutions. Expected differences were not observed for church membership and attendance, informal groups and relationships and the local economy.

Since hired workers account for approximately 85% of the larger than family and industrial-type farm work forces, a replacement of family-type farms by either or both of these two farm-types would result in major alterations to the background-SES, family structure and behavioral integration characteristics of the work force. The types and possible magnitudes of these changes are reported in Table 4. Work force size has been controlled in these computations. The characteristics of the major status groups were synthesized to correspond to their relative numbers in the work forces of each farm type. Thus, the family type work force contains 85% LO-CO-M-L's and 15% hired laborers (L), the larger than family=15% LO-CO-M's and 85% L's and the industrial-type work force=15% hired manager's (M) and 85% L's.

-Table 4 about here-

The result in table 4 indicates substantial differences exist between the three farm types in the characteristics of their work forces. They also suggest, ceteris paribus, the replacement of family type farms by either larger than family or industrial type farms is likely to result in substantial changes in the characteristics of the farm work force.

Table 4. Selected Background-SES, Family Structure and Process and Social System Integration Characteristics for the Work Forces of Incorporated Wisconsin Family, Larger than Family and Industrial-type Farms[1]

Work Force Characteristics	Farm Type Work Forces		
	Family	Larger Than Family	Industrial
Background-SES			
Percentage raised on farms	90.8	82.1	82.8
Average years education	12.0	10.5	10.4
Average years agric. education	4.8	2.7	2.6
Number of jobs held and farms owned/ 100 work force members	330	390	410
Average years on present farm	22.2	10.8	8.7
Av. net monthly income (family) $	920	740	580
Av. net worth ($000)	107.6	56.6	22.8
Av. level of living (index)	16.1	14.1	13.8
Family Structure and Process			
Av. age	45.2	42.6	42.4
Percentage married	88	76	78
Children at home/100 w.f. members	202	167	182
Family size at home/100 w.f. members	390	343	360
Av. age youngest child at home[2]	3.6	2.9	2.9
Percentage adult children residing in comm.	42	31	27
Social System Integration			
Voluntary organization memberships/100 w.f. members			
Community(adult males & wives)	196	66	58
Total family	565	248	245
Informal Groups & Relationships			
Av. number "very close" friends	27	24	24
Av. contacts with 3 best friends/month	26	31	31
Activities with friends and neighbors (index)	17	15	15
Av. number of relatives within 30 miles	24	20	19
Churches			
Percentage members	84	84	86
Av. monthly attendance	2.5	2.3	2.4
Number of nonattendance activities by family members over last 5 yrs./100 w.f. members	271	138	142
Weekly contributions ($)/100 w.f. members	660	289	297

Table 4. Continued

Work Force Characteristics	Farm Type Work Force	Larger Than Family	Industrial
The Polity			
Av. percentage voting in eight elections	78	54	51
Number of political activities (of 11) in last 5 yrs./100 w.f. members	410	150	150
Percentage with "not much" interest in local politics	21	42	44
The Educational System			
Percentage voting last school board election	48	13	11
Number of wives PTA or Mother's Club members/100 w.f. members	9.5	2.5	5.8
Number of school activities by children/ 100 w.f. members	456	253	261
Percentage adult children with 13 or more years education	48	25	21
The Economy			
Av. percentage of 11 personal items purchased in comm. when available	61	57	57
Av. percentage of 11 farm items purchased in comm. when available	55	47	44

The consequences of such changes in statistics are: a reduction in the percentage raised on farms, a decline in average years of formal and agriculture education, decreased job and residential stability and substantial declines in average work force incomes, levels of wealth and living. In terms of family structure, declines will occur in average age, percentage married, numbers of children at home, family size and numbers and the percentages of adult children residing in the community. Regarding involvement in various social systems, large reduction would occur in voluntary organization memberships of all kinds, involvement in nonattendance church activities, financial contributions to churches, percentages voting in federal, state and local elections, the total number of political activities engaged in, interest in local politics, percentages voting in school board elections, PTA or Mothers Clubs memberships, the number of school activities engaged in by children, and the educationl attainment of work force members children. Little or no change is suggested in types and levels of involement in informal groups and interaction, church membership and attendance and the percentages of personal and farm items purchased in the communities of residence.

All other things equal, these changes in farm types will have great significance for the communities within which they occur. As pointed out earlier, major differences exist between the farm types in their sizes and work force population densities. It was estimated that if the industrial-type farms here were to replace the large family type farms, farm numbers would decline by 81%, average crop acres per farm would increase by 518% and the size of the farm work force would decline by 27% (Rodefeld, 1974:250). Replacement of the family-type farms here by the larger than family type farms is likely to have comparable results. Thus, if these family type farms are replaced by either of the other two types, reduction will be observed in the size of the farm work force and farm

population. This is independent of any changes in population numbers suggested in Table 4. One implication of the preceding is that the magnitude of differences for many of the work force characteristics reported in Table 4 are less than what they would be in an actual change situation. Thus, total family numbers, numbers of memberships in voluntary organizations, churches, etc. will be less than those reported for the larger than family and industrial-type farm work forces.

Changes in the background-SES, family structure and behavioral integration characteristics as a result of the preceding changes in farm types and status-set compositions have rather direct and evident implications for the compositional characteristics, population structure and processes and the strucutre and functioning of social systems in communities experiencing such changes. All other things equal, changes in farm work force background-SES and family structure characteristics will result in comparable community compositional and population changes. Changes in behavioral integration characterisitcs suggest reduced levels of involvement and activity in almost all community institutions and organizations. These levels will be reduced further by reduction in farm work force population density, a result of changing farm sized and types, and resultant declines in the size of the farm work force and population.

All of the preceding is of course highly tentative. Other important farm type changes are also occuring, such as possible increases in tenant-type farms operated by writers and minority land owners and the increased differentiation of capital ownership and management, which have not been assessed here. Data comparable to that collected here for a representative sample of state farms would have allowed estimates of the types and magnitudes of farm work force

changes from present day farms to each of the larger sized farm-types included in the present analysis.

While numerous community level implications and changes can be postulated as a result of cross-sectional farm-type and status-set characteristics and comparisons, the most definitive data would derive from longitudinal studies of communities experiencing such changes. More definitive data would also be yeilded from cross sectional community comparisons where all extraneous variables other than farm strucutral-type and work force status-set composition were controlled.

FOOTNOTES

1. Three other dimensions not included here but largely subsumed by those included are the levels of differentiation between land and capital ownership and each of these and labor. Increased differentiation on any or all of the dimensions discussed will result in increased differentiation between land and/or capital ownership and labor. Increased differentiation between management and the two types of ownership will also increase the levels between land and capital ownership.
2. Major exceptions are the South and West, fruit and vegetable production and the importance of farms with high levels of land ownership, management differentiation (tenant-type farms) in the 1920's and 1930's.
3. When all six dimensions of structure are considered, the polar opposite to this farm type is that with high levels of differentiation on all dimensions. Arrayed between these two extreme types are 13 other structurally unique farm types with high levels of differentiation on one to five of these dimensions (Rodefeld, 1974).
4. Given the high levels of capital ownership by farm managers, it is likely a high percentage of these farms also had low levels of capital ownership, management differentiation.
5. Based on the levels of differentation (diff.) between land ownership, management and labor, three other structural "types" of farms can be identified. Tenant-type farms have high levels of land ownership, management diff. and low management, labor diff. Larger than family-type farms are the reverse. Industrial-type farms have high levels of diff. on both dimensions.

6a. Fourteen other status-sets are identified taking this approach. The polar opposites of the LO-CO-M-L status-set are those containing one status in their set i.e. LO, CO, M and L. Ten other sets containing either two or three status-roles are located between the extremes. These are: LO-CO, LO-M, LO-L, CO-M, CO-L, M-L, LO-CO-M, CO-M-L, LO-M-L and LO-CO-L. This last status-set and none of the status sets consisting of two status-roles will be discussed

in the present paper. They are discussed in detail in Rodefeld, 1974.

6. Contrary to expectations, tenant-type farms declined more rapidly from 1959 to 1964 than the family-type. This appeared to be largely a function, however, of the inability to classify farms according to whether the manager owned more or less than 50 percent of the land in the farm. All full and part owner operated farms, including those owning less than half, were classified in the family and larger than family categories. Thus, the numbers reported for these two farm types were overstated while those for the tenant and industrial-types were understated.
7. Major references for the preceding were Taylor 1926, Schuler 1938a and 1938b, Slocum 1942, Taylor 1926, Charlton 1954, McMillan 1945, McMillan and Duncan 1945, Hostetler and Mather 1952, Lundquist and Carver 1927, and Mathews and Prothro 1966. Additional references are reported in Rodefeld, 1974.
8. Major references in this section are Schuler 1938a, Heffernan 1972, Rushing 1972, Charlton 1954, Roberts 1945-46, Goldschmidt 1946, Wright and Hyman 1958, Taylor 1926. Other references and relevant nonfarm literature are provided in Rodefeld, 1974.
9. Of all such industrial-type farms, 56 percent were owned by an individual or family and 20 percent by a small group of unrelated individuals.
10. A possible exception is increased CO,M differentiation and the decline of LO-CO-M-L farms relative to CO/LO-M-L farm types.
11. Wisconsin Agricultural Experiment Station Project No. 6019. Dr. E.A. Wilkening was principal investigator on this project.
12. Tenant-type farms were not included because of their small number. Few farms were indentified with high capital owner, manager differentiation, i.e. the CO/LO-M-L type.

BIBLIOGRAPHY

Ball, A. G. and E. O. Heady, Ed. by, Size, Structure and Future of Farms, Ames, Iowa: The Iowa State University Press, 1972.

Berry, Russell, T., "Share Rents as an Obstacle to Farm Improvement and Soil Conservation," Journal of Land Economics, 40 (1964).

Bible, A., "Impact of Corporation Farming on Small Business," Farm Workers in Rural America, 1971-1972, Part 3, U.S. Senate, Committee on Labor and Public Welfare, Hearings Before the Subcommittee on Migratory Labor, 92nd Cong., 1st and 2nd Sess., Washington, D.C.: U.S. Government Printing Office, 1972.

Bizzell, W. B., "The Social Effects of Tenancy," in American Country Life Association--Farm Income and Farm Life, University of Chicago, New York: New York, 1927.

Breimyer, H. F. and W. Barr, "Issues in Concentration Versus Dispersion," Who Will Control U.S. Agriculture? Ed. by, H. D. Guither, North Central Regional Extension Publication 32, Urbana-Champaign, Ill.: University of Illinois, College of Agriculture, Cooperative Extension Service Special Publication 27, 1972.

Charlton, J. L., Social Aspects of Farm Ownership and Tenancy in the Arkansas Coastal Plain, Fayetteville, Arkansas: University of Arkansas, Agr. Exp. Sta. Bulletin 545, June 1954.

Fey, Harold E., "The Religious Crisis in Rural America," American Scholar, 4:2, (1935).

Flora, J. and R. D. Rodefeld, "The Nature, Magnitude and Consequences of Changes in Agricultural Technology," Change in Rural America: Causes, Consequences and Alternatives, R. D. Rodefeld, et al. (eds.), C. V. Mosby Company, St. Louis, August, 1978.

Goldschmidt, Walter R., "Small Business and the Community: A Study in Central Valley of California on Effects of Scale Farm Operation," Corporation Farming, U.S. Senate, Committee on Small Business, Subcommittee on Monopoly, 90th Cong., 2nd Sess., Washington, D.C.: U.S. Government Printing Office, 1968.

Goss, K., "Consequences of Diffusion of Innovations: The Case of Mechanization in U.S. Agriculture," M.A. thesis, Department of Communication, Michigan State University, East Lansing, Michigan, September, 1976.

Goss, K. F. and R. D. Rodefeld, "Consequences of Mechanization in U.S. Agriculture, 1935-1975," Unpublished paper, Rural Sociological Society meetings, Madison, Wisconsin, September, 1977.

Hathaway, D. E., J. A. Beegle and W. K. Bryant, People of Rural America, U.S. Bureau of the Census (A 1960 Census Monograph) Washington, D.C.: U.S. Government Printing Office, 1968.

Heffernan, William D., "Sociological Dimensions of Agricultural Structures in the U.S.," Paper presented at the Third World Congress for Rural Sociology, Baton Rouge, Louisiana, August, 1972.

Hostetler, John A. and W. G. Mather, Participation in the Rural Church, College Park, Pa.: Pennsylvania State College, Dept. of Agricultural Economy and Rural Sociology, Journal Paper 1762, October, 1952.

Kolb, J. H. and Brunner E. de S., A Study of Rural Society, Boston, New York, Houghton Mifflin Company, 1952.

LaRose, B. L., "Arvin and Dinuba Revisited: A New Look at Community Structure and Effects of Scale of Farm Operations," Role of Giant Corporations, Part 3B, Appendixes, U.S. Senate, Committee on Small Business, Hearings Before the Subcommittee on Monopoly, 92nd Cong. 1st and 2nd Sess., Washington, D.C.: U.S. Government Printing Office, 1973.

Lundquist, G. A. and T. N. Carver, Principles of Rural Sociology, Boston, New York: Ginn and Company, 1927.

Matthews, Donald R. and James W. Prothro, Negroes and the New Southern Politics, New York: Harcourt, Brace and World, 1966.

McMillan, Robert T., "Are Tenure Differences Due to Tenure?", Journal of Farm Economics, 28 (1946).

McMillan, R. T. and O. D. Duncan, Social Factors of Farm Ownership in Oklahoma, Stillwater, Okla.: Oklahoma Agr. Exp. Sta. Bulletin No. B-289, Oklahoma A and M College, November, 1945.

McWilliams, Carey, Ill Fares the Land; Migrants and Migratory Labor in the U.S., Boston: Little, Brown, and Co., 1942.

Miller, Walter G., "Farm Tenure Perspective of Vertical Integration," Journal of Farm Economics, 42:1 (1960).

Moyer, D., M. Harris and M. Harmon, Land Tenure in the United States: Development and Status, USDA ERS Agr. Information Bulletin No. 338, June, 1969.

Raup, P. M., "Needed Research into the Effects of Large Scale Farm and Business Firms on Rural America," Role of Giant Corporations, U.S. Senate, Committee on Small Business, Hearings Before the Subcommittee on Monopoly, 92nd Cong., 1st and 2nd Sess., Washington, D.C.: U.S. Government Printing Office, 1973.

Rhodes, V. James and L. R. Kyle, "A Corporate Agriculture," Who Will Control U.S. Agriculture? A Series of Six Leaflets, Ed. by H. D. Guither, North Central Regional Extension Publication 32, Urbana-Champaign, Ill.: University of Ill., College of Agriculture, Cooperative Extension Service Special Publication 28, 1972.

Roberts, Harry W., "Effects of Farm Ownership on Rural Family Life," Social Forces, 24 (1945-46).

Rodefeld, R. D., "The Changing Organizational and Occupational Structure of Farming and the Implications for Farm Workforce Individuals, Families and Communities," Ph.D. dissertation, Department of Rural Sociology, University of Wisconsin, Madison, Wisconsin, May 1974.

Rodefeld, R. D., "The Changing Structure of U.S. Farms: Trends, Causes, Consequences and Research Needs," Unpublished manuscript prepared for the GAO, March, 1978a.

Rodefeld, R. D., "The Causes of Change in Farm Technology, Size and Organizational Structure," Change in Rural America: Causes, Consequences and Alternatives, Richard D. Rodefeld, et al. (eds.), C. V. Mosby Company, St. Louis, August, 1978b.

Rodefeld, R. D., "Trends in U.S. Farm Organizational Structure and Type," Change in Rural America: Causes, Consequences and Alternatives, Richard D. Rodefeld, et al. (eds.), C. V. Mosby Company, St. Louis, August, 1978c.

Rodefeld, R. D., "The Nature, Magnitude and Consequences of Change in Farm Organizational, Occupational and Class Structure," Change in Rural America: Causes, Consequences and Alternatives, Richard D. Rodefeld, et al. (eds.), C. V. Mosby Company, St. Louis, August, 1978d.

Rodefeld, R. D., J. Flora, D. Voth, J. Converse and I. Fujimoto, Change in Rural America: Causes, Consequences and Alternatives, C. V. Mosby Company, St. Louis, August, 1978.

Rodefeld, R. D. and E. A. Wilkening, "Wisconsin Incorporated Farms I: Types, Characteristics and Trends," Role of Giant Corporations Part 3B-Appendixes, U.S. Senate, Committee on Small Business, Hearings Before the Subcommittee on Monopoly, 92nd Cong., 1st and 2nd Sess., Washington, D.C.: U.S. Government Printing Office, 1973.

Rushing, William A., Class, Culture and Alienation: A Study of Farmers and Farm Workers, Lexington, Mass.; Toronto, London: D.C. Heath and Company, 1972.

Schuler, E. A., Social Status and Farm Tenure--Attitudes and Social Conditions of Corn Belt and Cotton Belt Farmers, USDA, The Farm Security Administration and the Bureau of Agricultural Economics Cooperating, Social Research Report No. IV, Washington, D.C., April, 1938a.

Schuler, Edgar, "The Present Social Status of American Farm Tenants," Rural Sociology, 3 (March 1938b).

Slocum, Walter L., The Influence of Tenure Status Upon Rural Life in Eastern South Dakota, Bulletin 39, Agr. Exp. Sta., South Dakota State College, Brookings, South Dakota, May 1942.

Stinchcombe, Arthur L., "Agricultural Enterprise and Rural Class Relations," American Journal of Sociology, 67 (September, 1961).

Taylor, C. C., Rural Sociology: A Study of Rural Problems, New York and London: Harper and Brothers, 1926.